

IN THE CLAIMS

Please cancel claims 9 and 10 without prejudice.

sub 5 1. (Original) A system for communicating an analog input signal  
6 as a modulated binary laser signal over a communication medium  
7 recovered as an output digital signal, the system comprising  
8 a sigma delta modulator for receiving the analog input signal  
9 and modulating the analog signal into a modulated symbol signal,  
10 a transmitter for converting the modulated symbol signal into  
11 the modulated binary laser signal, and for transmitting the  
12 modulated binary laser signal over the communication medium,  
13 a receiver for receiving and detecting the modulated binary  
14 laser signal for providing a received symbol signal, and  
15 a digital filter for filtering the symbol signal into  
16 the digital output signal.

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19 2. (Original) The system of claim 1 wherein the transmitter  
20 comprises,  
21 a symbol to binary converter for converting the modulated  
22 symbol signal from the sigma delta modulator into a converted  
23 digital signal, and  
24 a pulse width modulator for modulating the laser signal by the  
25 converted digital signal into the modulated binary laser signal as  
26 a pulse width binary modulated laser signal communicated over the  
27 communication medium.  
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1 3. (Original) The system of claim 2 wherein the receiver  
2 comprises,

3 a pulse width detector receiving the pulse width modulated  
4 binary laser signal and for providing a detected binary signal, and  
5 a binary to symbol converter for converting the detected binary  
6 signal into the received symbol signal.

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9 4. (Original) The system of claim 3 wherein,

10 the pulse width detector is a pulse width quantizer detector,  
11 the detected binary signal is a detected quantized signal,  
12 the binary to symbol converter converts the detected quantized  
13 signal into the received symbol signal.

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16 5. (Original) The system of claim 1 further comprising,

17 a timing recovery loop for generating a timing signal from the  
18 receive symbol signal for clocking the digital filter.

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21 6. (Original) The system of claim 1 wherein,

22 the sigma delta modulator is a first order sigma delta  
23 modulator.

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25 7. (Original) The system of claim 1 wherein,

26 the sigma delta modulator is a second order sigma delta  
27 modulator.

1 8. (Original) The system of claim 1 wherein the communication  
2 medium is a fiber optic.

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4 9. (Canceled) The transmitter of claim 1 wherein the pulse width  
5 modulated laser signal is an on off shift keying signal.

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7 10. (Canceled) The transmitter of claim 1 wherein the modulated  
8 signal is a phase shift keying signal.

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10 11. (Original) A system for communicating an analog input signal as  
11 a pulse width modulated binary laser signal over a communication  
12 medium recovered as an output digital signal, the system comprising  
13 a sigma delta modulator for receiving the analog input signal  
14 and modulating the analog signal into a modulated symbol signal,  
15 a transmitter for converting the modulated symbol signal into  
16 a converted digital signal for pulse width modulating a laser  
17 signal into the pulse width modulated binary laser signal, and for  
18 transmitting the pulse width modulated binary laser signal over the  
19 communication medium,

20 a receiver for receiving and detecting the pulse width  
21 modulated binary laser signal to provide a detected binary signal  
22 and for converting the detected binary signal into a received  
23 symbol signal, and

24 a digital filter for filtering the symbol signal into  
25 the digital output signal.

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